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CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10) Applicant(s): McLoughlin, et al			Docket No. DB000894-000
Serial No. 09/991,801	Filing Date November 16, 2001	Examiner Cephia D. T mer	Group Art Unit 1714

Invention: **A Stabilization System for Improving the Melt Viscosity of Polypropylene During Fiber Processing**

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TRANSMITTAL OF APPEAL BRIEF (Large Entity)	Docket No. DB000894.000

In the Application Of: **McLoughlin, et al.**

Serial No.	Filing Date	Examiner	Group Art Unit
09/991,801	November 16, 2001	Cephia D. Toomer	1714

Invention: **A Stabilization Systm for Improving the Melt Viscosity of Polypropylene in During Fiber Processing**

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on **August 22, 2003.**

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☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

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Signature

Dated: **October 8, 2003**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: McLoughlin et al.	:	
	:	Group No. : 1714
Serial No.: 09/991,801	:	
	:	Examiner: Cephia D. Toomer
Filed: November 16, 2001	:	

For: A Stabilization System for Improving the Melt Viscosity of Polypropylene in During Fiber Processing

BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192

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Real party in Interest

Applicant's real party in interest is:

Sunoco, Inc. (R&M)
1801 Market Street
Philadelphia, PA 19103

Related Appeals and Interferences

Applicants, applicants' assignee and applicants' legal representative are unaware of any appeals or interferences that are related to the instant appeal, or that will affect, be affected by or have any bearing on the Board's decision in the instant appeal.

Status of the Claims

As originally filed, the application contained claims 1-20. Claims 1-19 are currently pending and are rejected. Claim 20 has been cancelled.

Applicants appeal from the rejection of claims 1-19 under 35 U.S.C. § 103(a).

Status of Amendments

In response to the Final Rejection by the Examiner dated March 28, 2003, Applicants submitted the amendments attached hereto as Appendix "B". Through these amendments, Applicants sought to cancel dependent claims 6 and 7, and insert limitations from these claims into independent claim 1. Applicants further sought to amend claim 14 to better define the invention claimed therein.

In the Advisory Action dated July 16, 2003, the Examiner declined to enter the amendments, indicating that they were not deemed to place the application in a better form for appeal by materially reducing or simplifying the issues for appeal.

Applicants respectfully submit that the Examiner erred in not entering the amendments submitted after final rejection, because they do place the application in a better form for appeal by materially reducing and simplifying the issues for appeal.

By canceling dependent claims 6 and 7, Applicants' amendment would reduce the number of claim groups that need to be considered by the Board.

By including limitations from dependent claims 6 and 7 in independent claim 1, Applicants' amendment would reduce the number of issues in the application. In the Office Action dated March 28, 2003, the Examiner rejected claims 1-6 and 9-13 under 35 U.S.C. § 102(b) as anticipated by EP 411628. By omission, the Examiner admits that claim 7 is not anticipated by EP 411628. Therefore, by incorporating a limitation from claim 7 into claim 1, independent claim 1, and by extension claims 2-6 and 9-13, are no longer anticipated by EP 411628. Thus, if Applicants' amendment were entered, it would moot the Examiner's rejection based on EP 411628, leaving only the Examiner's rejection under 35 U.S.C. § 103(a).

By including limitations from dependent claims 6 and 7 in independent claim 1,

Applicants' amendment would further clarify for the Board the differences between the composition of the current invention and the references cited by the Examiner.

By amending independent claim 14, Applicants' amendment would better define the method recited in claims 14-19 and clarify for the Board the differences between the method recited in claims 14-19 and the references cited by the Examiner. Applicants' amendment clarifies and limits the scope of claims 14-19 by defining the method as improving "melt viscosity control of polypropylene in fiber processing." Therefore, Applicants' amendment would simplify the Board's analysis of claims 14-19 versus the references cited by the Examiner.

Summary of the Invention

Claims 1-13 on appeal define a stabilized polypropylene for use in fiber processing wherein the polypropylene is coated with a stabilization system consisting essentially of a phenolic antioxidant, a liquid phosphite and a liquid carrier. The preferred concentrations of each stabilizer component are 50 to 100 ppm of the phenolic antioxidant and 150 to 500 ppm of the liquid phosphite. The stabilized polypropylene may optionally be further coated with a second phosphite.

Claims 14-19 on appeal define a method of improving the melt viscosity of polypropylene in fiber processing. The method comprises applying a stabilizer composition to a polypropylene. The stabilizer composition consists essentially of 50 to 100 ppm of a phenolic antioxidant, 150 to 500 ppm of a liquid phosphite and a liquid carrier. The method may optionally further comprise applying an additional phosphite to the polypropylene.

In conventional fiber production processes, polypropylene fibers are produced by first feeding polypropylene powder or pellets to an extruder, which melts the resin and blends it with pigments and other additives. The molten resin is forced through a many-holed die ("spinneret")

as continuous strands are air-quenched and then drawn to the final fiber diameter either by mechanical draw or by forced air. The fiber production process induces significant degradation of the resin. The extrusion is typically conducted at high temperature to minimize die pressure and maximize throughput rate. The thermal degradation is exacerbated by the shear of mixing and more so by the high shear associated with forcing molten resin through the small orifices of the spinneret. Additional degradation takes place as the resin is quenched from high temperature in an air current.

A key to successful fiber production is maintaining a consistent melt viscosity upstream of the spinneret throughout the production campaign. Variations in melt viscosity may cause process upsets ranging from spinneret over-pressuring to filament breaks. These upsets represent lost production time and often unacceptable cost for the fiber producer. Variations in melt viscosity can also lead to the use of excessive stabilizer concentrations, which result in high costs and poor fiber quality.

Conventional polypropylene resin fiber production methods control melt viscosity upstream of the spinneret by dry-blending granular or powder melt processing stabilizers with the resin powder prior to extrusion. The extrusion is relied upon to provide thorough mixing of the stabilizers and resin before significant degradation can take place. However, the extrusion portion of a conventional fiber process may not provide adequate mixing to ensure uniform distribution of stabilizers throughout the polymer. In addition, due to the high extrusion temperatures used for fiber production, significant polymer degradation can occur before the stabilization additives are well mixed with the resin. The resulting non-uniform stabilization and non-uniform degradation may lead to poor melt viscosity control of the resin during fiber processing.

The present invention provides improved melt viscosity control of resin during fiber processing. By coating the polypropylene resin with the particular stabilization system of the present invention improved dispersion of the stabilizers, and as a result improved consistency of resin melt viscosity during fiber processing, are obtained.

Issues Presented for Appeal

Whether the Examiner erred in not entering Applicants' amendments after final rejection.

Whether the Examiner erred in rejecting claims 1-19 under 35 U.S.C. § 103(a) based upon U.S. Patent 6,348,514 to Calabrese et al in view of U.S. Patent 5,324,798 to Sanders et al.

Grouping of Claims

Group I

Claims 1-6 and 9-13 recite a stabilized polypropylene for use in fiber processing. The stabilized polypropylene comprises a polypropylene coated with a stabilizer system consisting essentially of a phenolic antioxidant, a liquid phosphite and a liquid carrier. The preferred phenolic antioxidant is a cinnamate derivative, more preferably octadecyl-3, 5-di-tert-butyl-4-hydroxyhydrocinnamate. The preferred liquid phosphite is trisnonylphenol phosphite and the preferred liquid carrier is mineral oil. The stabilized polypropylene may further comprise 150-500 ppm of tris-(2,4-di-tert-butylphenyl)phosphite. None of the claims of this group are considered to be patentably distinct from one another.

Group II

Claims 7 and 8 recite a stabilized polypropylene for use in fiber processing. The stabilized polypropylene comprises a polypropylene coated with a stabilizer system consisting essentially of a 50-100 ppm of octadecyl-3, 5-di-tert-butyl-4-hydroxyhydrocinnamate, 150-500 ppm of trisnonylphenol phosphite and a liquid carrier. The stabilized polypropylene may further

comprise 150-500 ppm of tris-(2,4-di-tert-butylphenyl)phosphite. None of the claims of this group are considered to be patentably distinct from one another.

Group III

Claims 14-19 recite a method for improving the melt viscosity of polypropylene for use in fiber processing. The method comprises applying a stabilizer system to a polypropylene, the stabilizer system consisting essentially of 50-100 ppm of a phenolic antioxidant, 150-500 ppm of a liquid phosphite and a liquid carrier. The preferred phenolic antioxidant is a cinnamate derivative, more preferably octadecyl-3, 5-di-tert-butyl-4-hydroxyhydrocinnamate. The preferred liquid phosphite is trisnonylphenol phosphite and the preferred liquid carrier is mineral oil. Additionally, 150-500 ppm of a second phosphite, tris-(2,4-di-tert-butylphenyl)phosphite may be applied to the polypropylene. None of the claims of this group are considered to be patentably distinct from one another.

For ease of review, the claims may be grouped as follows:

Group I: claims 1-6 and 9-13

Group II: claims 7 and 8

Group III: claims 14-19

Argument

It is respectfully submitted that the Examiner has committed several errors in the rejection of claims 1-19 under § 103(a) based upon U.S. Patent 6,348,514 to Calabrese et al in view of U.S. Patent 5,324,798 to Sanders et al. First, the Examiner contends that Calabrese, which teaches an additive for preventing scorch in the production of polyurethane foams, is pertinent to the problem of controlling the melt viscosity of polypropylene in the production of fibers. Second, the Examiner has failed to show any motivation for combining Calabrese and

Sanders. The Examiner has impermissibly used the Applicants' disclosure as hindsight motivation to selectively choose and combine individual components from two non-analogous art references, Calabrese and Sanders, to construct Applicants' claimed invention. Third, the Examiner has ignored express limitations in Applicants' claims and the express teachings of Calabrese and Sanders. Finally, the Examiner has made an assertion of inherent properties in the disclosure of Calabrese without providing any rationale or evidence tending to show inherency.

It is further respectfully submitted that the Examiner erred in not entering the Applicants' amendment after Final Rejection. The Applicants' proposed amendment would render the Examiner's rejection under 35 U.S.C. § 102(b) moot and obviate the presentation of claims 7 and 8 as a separate group.

I. The Claims of Group I are patentable over the prior art.

The Examiner rejected claims 1-6 and 9-13 under 35 U.S.C. § 103(a) as obvious over Calabrese et al. in combination with Sanders et al.

In the Office Action dated March 28, 2003 (Paper No. 10) the Examiner asserts that Calabrese teaches a stabilization system containing 0.01 to 5 weight percent of a phenolic antioxidant and a phosphite for the stabilization of polypropylene. Paper No. 10, p. 2. The Examiner further asserts that it would have been obvious to one skilled in the art to incorporate the stabilizer system of Calabrese into the liquid carrier disclosed in Sanders. Paper No. 10, p. 3. The Examiner has made several errors in her assertions and has thus failed to establish *prima facie* obviousness of the claims at issue.

First, the Examiner's rejection is premised on the false assumption that one faced with the problem of controlling the melt viscosity of polypropylene in fiber processing would refer for guidance to a reference that teaches the prevention of scorch in the manufacture of polyurethane

foams. "In order for a reference to be used as a basis for rejection of an applicant's invention, the reference must either be *in the field of the applicant's endeavor* or, if not, be reasonably pertinent to the *particular* problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992) emphasis added.

The Examiner's only basis for asserting that Calabrese is in the field of the Applicants' endeavor is a single mention of polypropylene in Calabrese's specification. However, this single mention of polypropylene amongst a myriad of other unrelated organic compounds is nothing more than a recognition of the well known fact that phenolic antioxidants and other stabilizers are useful for stabilizing organic compounds. To define the field of either Calabrese or the invention of claims 1-6 and 9-13 as the stabilization of organic compounds is overly broad. The field of Calabrese's express teachings is the use of a particular phenolic antioxidant and other known stabilizers to prevent scorch in the production of polyurethane foams. In contrast, the field of the invention recited in claims 1-6 and 9-13 is the control of the melt viscosity of polypropylene in fiber processing.

Even though both may relate to the stabilization of organic compounds or even polymers, they cannot be considered to be within the same field of endeavor merely on this basis. See *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992) (The court found that a reference related to using a gel to improve the *extraction* of petroleum from underground reserves was not in the same field of endeavor as claims in application related to *storage* of refined hydrocarbons in man-made storage tanks, even though both related to the petroleum industry). Similarly, even though Calabrese and claims 1-6 and 9-13 relate to the use of phenolic antioxidants and other stabilizers to stabilize polymers they cannot be said to be in the same field of endeavor merely on this basis.

Further, the problem addressed by Calabrese is not pertinent to the problem addressed by the invention of claims 1-6 and 9-13. "If a reference has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection." *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992). Scorch is defined by Calabrese as a thermo-oxidative process caused by the heat released by an exothermic reaction, and is measured by coloration of a foam produced in the reaction. Calabrese, col. 1, lns. 40-50. In contrast, the invention of claims 1-6 and 9-13 addresses the problem of controlling the melt viscosity of polypropylene, which decreases as a result of a chain-scission in the polymer during extrusion in fiber processing. The contrast could not be more clear: Calabrese is concerned with a thermo-oxidative process that occurs during a polymerization reaction, whereas the invention of claims 1-6 and 9-13 is concerned with preventing degradation of an already formed polymer during extrusion. Calabrese and claims 1-6 and 9-13 do not address the same problem, thus the use of Calabrese in an obviousness rejection is improper.

Further, the Examiner's reliance on Sanders as supporting art in combination with Calabrese does nothing to address the fundamental deficiency of Calabrese. In fact, Sanders is similarly far removed from the field of endeavor of Calabrese since Sanders deals with applying stabilizers to an already formed olefinic polymers, not preventing a thermo-oxidative process during polymerization. The Examiner has provided no rationale for combining Calabrese and Sanders. "There are three possible sources of motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

As shown above, the problem solved by the invention of claims 1-6 and 9-13 is

fundamentally different from the problem addressed by Calabrese. Further, Calabrese and Sanders contain no motivation to combine their teachings as they each relate to different fields of endeavor. For this same reason, one of ordinary skill in the art having knowledge of the divergent teachings of Calabrese and Sanders would not be motivated to combine the references.

The Examiner's only source of motivation to combine Calabrese and Sanders as the Examiner has done is found in the Applicants' disclosure. "The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness." *In re Oetiker*, 977 F.2d at 1447, 24 USPQ2d at 1446. The Examiner has used impermissible hindsight to selectively choose and combine individual components from both Calabrese and Sanders to construct the invention of claims 1-6 and 9-13 where neither Calabrese nor Sanders provide any guidance or motivation to combine them in the way that the Applicants have. Calabrese discloses that its essential phenolic antioxidant stabilizer can be supplemented with one or more co-stabilizers, including additional phenolics, amines, thioethers and phosphites. However, Calabrese's only concrete examples are combinations of one or two phenolic antioxidants with a single amine in a polyurethane foam.

Similarly, Sanders discloses a wide array of well known additives including phenolic antioxidants, phosphites, siloxanes, thioesters and amines. Sanders also discloses that combinations of these additives may be applied to a polyolefin as a dispersion in a liquid carrier. However, again Sander's only examples are combinations of phenolics with zinc oxide, hydrotalcites and amines.

Neither Calabrese nor Sanders teaches or suggests the stabilizer system recited as part of the stabilized polypropylene of claim 1. Only the present application discloses that combination.

What the Examiner has done is use Applicants' disclosure "as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the results of the [applicants'] claims." *Orthopedic Equipment Co., Inc. et al v. United States*, 702 F.2d 1005, 1012, 217 USPQ 193, 199 (Fed. Cir. 1983). In order to establish *prima facie* obviousness of a claim the combined references must provide "more than general guidance in a recognized area of technology." *In re Ball Corp.*, 925 F.2d 1480, *1, 18 USPQ2d 1491, 1493 (Fed. Cir. 1991) (unpublished) internal quotations omitted.

II. The Claims of Group II are patentable over the prior art.

The Examiner rejected claims 7 and 8 under 35 U.S.C. § 103(a) as obvious over Calabrese et al. in combination with Sanders et al. The arguments made with respect to the claims of Group I above are also applicable to the claims of Group II.

Claim 7 adds the limitation that the stabilization system recited in claim 1 contains 50-100 ppm of octadecyl-3, 5-di-tert-butyl-4-hydroxycinnamate as the phenolic antioxidant. Since claim 7 depends from claim 6, it is further limited to 150-500 ppm of trisnonylphenol phosphite.

The Examiner asserts that Calabrese teaches a stabilization system containing 0.01 to 5 percent of a phenolic antioxidant and a phosphite for the stabilization of polypropylene. Although not explicitly indicated in the Office Action, it is assumed that Examiner is asserting that since the lower range allegedly taught by Calabrese coincides with the upper range recited in claim 7, that claim is rendered obvious absent a showing of criticality or unexpected results.

However, it is respectfully submitted that the Examiner is mistaken here. What Calabrese discloses is that the particular phenolic antioxidant that is the subject of its claims and other supplemental stabilizers can be used at concentrations ranging from 0.01 to 5 percent by weight. Calabrese further states that, "[t]he specific amounts of stabilizer composition employed

can vary widely depending upon the particular organic material being stabilized." Calabrese, col. 3, lns. 29-32. No guidance whatsoever is provided regarding what concentrations may be appropriate for a given material or use, other than for preventing scorch in polyurethane foam production. Again, in order to establish *prime facie* obviousness, more than general guidance must be provided. *In re Ball Corp.*, 925 F.2d 1480, 18 USPQ2d 1491 (Fed. Cir. 1991) (unpublished).

III. The Claims of Group III are patentable over the prior art.

The Examiner rejected claims 14-19 under 35 U.S.C. § 103(a) as obvious over Calabrese et al. in combination with Sanders et al. The arguments made with respect to the claims of Group I and Group II above are also applicable to the claims of Group III.

The Examiner asserts that improving the melt viscosity of polypropylene during extrusion in fiber processing is an inherent benefit of practicing the method of Calabrese. Paper No. 10, p. 4. However, the Examiner has not met the burden of establishing that the results obtained by the method recited in claims 14-19 are inherent in the Calabrese reference. "In relying upon a theory of inherency, the examiner must provide some basis in fact and/or in technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The Examiner has provided absolutely no basis in fact or technical reasoning to support the rejection of claims 14-19 other than the assertion that the method of claims 14-19 is a "latent" property of the prior art. The Examiner has not pointed to any teaching of either Calabrese or Sanders, or to any extrinsic evidence. Thus, it is respectfully submitted that the Examiner has not met her burden in establishing the obviousness of the method recited in claims 14-19.

Regardless, no basis exists in either of Calabrese or Sanders to support the Examiner's assertion that the improvement in the control of the melt viscosity of polypropylene in fiber processing realized by the method of claims 14-19 necessarily flows from the application of a method for preventing scorch in the production of polyurethane foams. The recognition that phenolic antioxidants and other stabilizers are useful in stabilizing a variety of organic materials, including polypropylene is not a basis for determining that a specific application of a specific combination of those additives to a specific problem is obvious.

IV. Proposed Amended Claims 1 and 14 are patentable over the prior art.

In response to the Examiner's final rejection of claims 1-19, the Applicants filed the amended claims attached as Appendix "B". The Examiner declined to enter the amendment, indicating that the amendment did not materially reduce or simplify the issues for appeal. As indicated above, the amendment does materially reduce and simplify the issues for appeal by eliminating the Examiner's rejection under 35 U.S.C. § 102(b) and by reducing the number of claim groups that need to be considered by the Board.

Should the Board use its authority to enter the amendment, the amended independent claims 1 and 14, and their respective dependent claims would be patentable.

The Examiner rejected claims 1-6 and 9-13 as anticipated by EP 411628. The cited reference discloses stabilizing a polyolefin in particle form having a regular, essentially symmetrical geometrical shape. The polyolefin is stabilized by depositing on its surface a mixture comprising 0.02% to 0.15% of one or more organic phosphites or phosphonites; 0.025% to 0.2% of one or more phenolic antioxidants; and optionally one or more additional components selected from 0.05% to 0.5% of one or more thioethers, organic polysulfides or mixtures thereof; 0.1% to 1.0% of one or more light stabilizers; and one or more diluents selected from the group

consisting of paraffins, cycloparaffins, soy bean or linseed oil, silicones oils and olefin oligomers. EP 411628, p. 2, lns. 28-46. The reference further discloses that the polyolefins thus treated are stable on extended storage. Nowhere does the reference discuss fiber processing.

The Examiner did not reject claim 7 as anticipated by EP 411628. Indeed, claim 7 includes the limitation that the stabilization system recited in claim 1 contains 50-100 ppm of a phenolic antioxidant, which is outside the disclosure of EP 411628. Therefore, including this limitation in claim 1, would place claim 1 outside the disclosure of EP 411628.

As demonstrated above, the Examiner's rejection of current claim 1 as obvious over the combination of Calabrese and Sanders is improper. Likewise, a rejection of proposed amended claim 1 over the same combination of references would also be improper. Further, since neither of Calabrese or Sanders teach the concentrations of stabilizers recited in proposed amended claim 1, no combination of these references with EP 411628 would render proposed amended claim 1 obvious.

The Examiner did not reject claim 14 as anticipated by EP 411628. As stated above, claim 14 recites a method for improving the melt viscosity of polypropylene for use in fiber processing, comprising applying a stabilizer system to a polypropylene, the stabilizer system consisting essentially of 50-100 ppm of a phenolic antioxidant, 150-500 ppm of a liquid phosphite and a liquid carrier. Again, the stabilizer system recited in claim 14 is outside the scope of that disclosed in EP 411628. Further, EP 411628 does not disclose improving melt viscosity in fiber processing. In fact, EP 411628 does not discuss the processing of polypropylene into anything.

As demonstrated above, the Examiner's rejection of current claim 14 as obvious over the combination of Calabrese and Sanders is improper. Likewise, a rejection of proposed amended

claim 14 over the same combination of references would also be improper. Further, since neither of Calabrese or Sanders teach the processing of polypropylene into fibers, or the concentrations of stabilizers recited in proposed amended claim 14, no combination of these references with EP 411628 would render proposed amended claim 14 obvious.

Conclusion

The claims on appeal are not obvious under 35 U.S.C. § 103(a) over any of the cited references alone or in combination. None of the cited references suggest the combination of stabilizers recited in claims 1-13 for the purpose of improving the melt viscosity of polypropylene during fiber processing. None of the cited references suggests a method for improving the melt viscosity of polypropylene in fiber processing as recited in claims 14-19. Further, the Examiner erred in not entering Applicants' amendment after Final Rejection. Claims 1-19 as amended in Appendix "B" are novel and non-obvious over any of the cited references. It is respectfully requested that the Board use its authority to enter Applicants' amendment, reverse the Examiner's rejection under 35 U.S.C. § 103(a) and allow the application. Alternatively, it is respectfully requested that the Board reverse the Examiner's rejection under 35 U.S.C. § 103(a) and remand the application for entry of the Applicants' amendment and allowance.

Respectfully submitted,

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Appendix "A"

1. A stabilized polypropylene for use in fiber processing comprising:

   a polypropylene, said polypropylene being coated with a stabilizer system consisting essentially of:

   a phenolic anti-oxidant; a liquid phosphite; and a liquid carrier.

2. The stabilized polypropylene as claimed in claim 1 wherein the phenolic anti-oxidant is a cinnamate derivative.

3. The stabilized polypropylene as claimed in claim 2 wherein the liquid phosphite is trisnonylphenol phosphite.

4. The stabilized polypropylene as claimed in claim 3 wherein the liquid carrier is mineral oil.

5. The stabilized polypropylene as claimed in claim 4 wherein the phenolic anti-oxidant is octadecyl 3,5 -di -tert -butyl-4-hydroxyhydrocinnamate.

6. The stabilized polypropylene as claimed in claim 3 wherein said stabilization system contains approximately 150 -500 ppm trisnonylphenol phosphite.

7. The stabilized polypropylene as claimed in claim 6 wherein said stabilization system contains approximately 50 -100 ppm octadecyl 3,5-di-tert-butyl-4 hydroxyhydrocinnamate.

8. The stabilized polypropylene as claimed in claim 7 additionally comprising approximately 150- 500 ppm of tris(2,4-di-tert-butylphenyl)phosphite.

9. The stabilized polypropylene as claimed in claim 1 wherein the phenolic anti-oxidant and the liquid phosphite are in a concentration ratio of about 1:2.0 to about 1:6.7.

10. The stabilized polypropylene as claimed in claim 9 wherein the liquid phosphite is trisnonylphenol phosphite.

11. The stabilized polypropylene as claimed in claim 10 wherein the phenolic anti-oxidant is octadecyl 3, 5-di-tert -butyl-4-hydroxyhydrocinnamate.

12. The stabilized polypropylene as claimed in claim 11 wherein the liquid carrier is mineral oil.

13. The stabilized polypropylene as claimed in claim 12 additionally comprising approximately 150- 500 ppm of tris(2,4-di-tert-butylphenyl)phosphite.

14. A method for improving the melt viscosity of polypropylene for use in fiber processing, comprising:

applying a stabilizer composition to a polypropylene, said polypropylene being in powder, flake or pellet form, wherein said stabilizer composition consists essentially of: approximately 50 -100 ppm of a phenolic anti-oxidant; approximately 150-500 ppm of a liquid phosphite; and a liquid carrier.

15. The method as claimed in claim 14 wherein the liquid phosphite is trisnonylphenol phosphite.

16. The method as claimed in claim 15 wherein the phenolic anti-oxidant is a cinnamate derivative.

17. The method as claimed in claim 16 wherein the phenolic anti-oxidant is octadecyl 3,5 -di-tert-butyl-4-hydroxyhydrocinnamate.

18. The method as claimed in claim 17 wherein the liquid carrier is mineral oil.

19. The method as claimed in claim 18 additionally comprising applying approximately 150-500 ppm of tris(2,4-di-tert-butylphenyl)phosphite to said polypropylene.

Appendix "B"

1. A stabilized polypropylene for use in fiber processing comprising:

a polypropylene, said polypropylene being coated with a stabilizer system consisting essentially of:

50 to 100 ppm of a phenolic anti-oxidant and 150 - 500 ppm of a liquid phosphite; ~~and~~ said anti-oxidant and said phosphite being dispersed or dissolved in a liquid carrier.

2. The stabilized polypropylene as claimed in claim 1 wherein the phenolic anti-oxidant is a cinnamate derivative.

3. The stabilized polypropylene as claimed in claim 2 wherein the liquid phosphite is trisnonylphenol phosphite.

4. The stabilized polypropylene as claimed in claim 3 wherein the liquid carrier is mineral oil.

5. The stabilized polypropylene as claimed in claim 4 wherein the phenolic anti-oxidant is octadecyl 3,5 -di -tert -butyl-4-hydroxyhydrocinnamate.

6. (Canceled)

7. (Canceled)

8. The stabilized polypropylene as claimed in claim 1 additionally comprising approximately 150- 500 ppm of tris(2,4-di-tert-butylphenyl)phosphite.

9. The stabilized polypropylene as claimed in claim 1 wherein the phenolic anti-oxidant and the liquid phosphite are in a concentration ratio of about 1:2.0 to about 1:6.7.

10. The stabilized polypropylene as claimed in claim 9 wherein the liquid phosphite is

trisnonylphenol phosphite.

11. The stabilized polypropylene as claimed in claim 10 wherein the phenolic anti-oxidant is octadecyl 3,5-di-tert -butyl-4-hydroxyhydrocinnamate.

12. The stabilized polypropylene as claimed in claim 11 wherein the liquid carrier is mineral oil.

13. The stabilized polypropylene as claimed in claim 12 additionally comprising approximately 150- 500 ppm of tris(2,4-di-tert-butylphenyl)phosphite.

14. A method for improving the melt viscosity control of polypropylene ~~for use~~ in fiber processing, the method comprising:

~~applying~~ spraying a stabilizer composition ~~to~~ onto a polypropylene, said polypropylene being in powder ~~flake or pellet~~ form, wherein said stabilizer composition consists essentially of:

approximately 50 -100 ppm of a phenolic anti-oxidant, and approximately 150-500 ppm of a liquid phosphite, ~~and~~ said anti-oxidant and said phosphite being dispersed or dissolved in a liquid carrier.

15. The method as claimed in claim 14 wherein the liquid phosphite is trisnonylphenol phosphite.

16. The method as claimed in claim 15 wherein the phenolic anti-oxidant is a cinnamate derivative.

17. The method as claimed in claim 16 wherein the phenolic anti-oxidant is octadecyl 3,5 -di-tert-butyl-4-hydroxyhydrocinnamate.

18. The method as claimed in claim 17 wherein the liquid carrier is mineral oil.

19. The method as claimed in claim 18 additionally comprising applying approximately 150-500 ppm of tris(2,4-di-tert-butylphenyl)phosphite to said polypropylene.